

Safety Data Sheet

TBSI

Version 1.2

Revision date: 1/1/2021

1 Identification of the substance and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: TBSI
Additional identification: N-(1,1-dimethylethyl)bis(2-benzothiazolesulfen)amide
Identification of the product: CAS#3741-80-8; EC#407-430-1
Index Number: 613-180-00-6

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

Used as rubber accelerator.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Manufacturer): Shanghai Rokem Industrial Co., Ltd
Address: 9D, Double Dove Great Tower, 438, Pudian Road. Shanghai, 200122, P.R.CHINA
Contact person(E-mail):
Telephone: +86-21-50812951
Fax: +86-21-58818728

1.4 Emergency telephone Number:

+353 41 980 6916

Available outside office hours? YES NO

2 Hazards Identification

2.1 Classification of the substance

2.1.1 Classification:

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

| REGULATION (EC) No 1272/2008 | |
|----------------------------------|------------------|
| Hazard classes/Hazard categories | Hazard statement |
| Aquatic Acute 1 | H400 |
| Aquatic Chronic 1 | H410 |

For full text of H- phrases: see section 2.2.

| 67/548/EEC | |
|-------------------------|-----------|
| Hazards characteristics | R-Phrases |
| N | R50/53 |

For full text of R- phrases: see section 16.

2.1.2 The most important adverse effects

2.1.2.1 The most important adverse physicochemical effects:

Not applicable.

2.1.2.2 The most important adverse human health effects:

May cause an allergic skin reaction.

2.1.2.3 The most important adverse environmental effects:

Very toxic to aquatic life with long lasting effects.

2.2 label elements

Hazard Pictograms:



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Signal Word(S): Warning
Hazard Statement: H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
Precautionary Statement: P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/container to local regulations.

2.3 Other hazards

Not available (PBT, vPvB, Substance is an endocrine disruptor etc.)

3 Composition/information on ingredients

Substance/Mixture: Substance
Ingredient(s):

| Chemical Name | Registration No. | CAS No. | EC No. | Concentration |
|---|------------------|-----------|-----------|---------------|
| N-(1,1-dimethylethyl)bis(2-benzothi azolesulfen)amide | N/A | 3741-80-8 | 407-430-1 | ≥92% |

4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

4.1.2 In case of skin contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

4.1.3 In case of eyes contact:

Remove contact lenses. Hold eyelids apart. Flush immediately with water for at least 15 minutes. Seek medical attention.

4.1.4 In case of ingestion:

Rinse mouth. Never induce vomiting in unconscious or confused persons. Always seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs, get medical advice/attention.

5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Carbon dioxide, appropriate foam or dry chemical, water spray.

Unsuitable extinguishing media: Water jet.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

5.3 Advice for fire-fighters:

Firefighters must wear fire resistant protective equipment. Wear self contained breathing apparatus and protective gloves.

6 Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapor or dust. Avoid skin and eye contact. Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2 For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

6.2 Environmental Precautions:

Avoid disposing into drainage/sewer system or directly into the aquatic environment. Keeping away from drains, surface-and ground-water and soil.

6.3 Methods for Containment and Cleaning up:

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal. Clean up affected area.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

6.5 Additional information:

Wet clean or vacuum up solids.

Don't use a brush or compressed air for cleaning surfaces or clothing.

Clear spills immediately.

7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Do not breathe dusts/vapor. Handle in well ventilated areas. Eliminate all sources of ignition, and do not generate flames or sparks. Take precautionary measures against static discharges.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from contact with oxidizing materials. Keep in properly labeled containers. Use appropriate containment to avoid environmental contamination. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations.

7.3 Specific end use(s):

Not applicable.

8 Exposure control/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: WEL-TWA: 4 mg/m³ (respirable dust)

OES-TWA: 10.0 mg/m³ (inhalable dust) OES-TWA: 4.0 mg/m³(respirable dust).

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Avoid dust generation. Ensure good ventilation and local exhaustion of the working area.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection Wear appropriate goggles to prevent eye exposure.

Hand protection Wear appropriate gloves to prevent skin exposure.

Body protection Wear suitable protective clothing to prevent skin exposure.

Respiratory protection Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.

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Thermal hazards Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste.
According to local regulations, Federal and official regulations.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|-------------------------------------|--|
| Appearance: | Light yellow Powder |
| Colour: | Light yellow |
| Odour: | Slight inherent odor |
| Odour threshold: | Not available |
| pH: | Not available |
| Melting point/range (°C): | 130~135 °c |
| Boiling point/range (°C) : | Not available |
| Vapour pressure (20°C) : | 0.0000053 hPa(20 °C) |
| Vapour density: | Not applicable |
| Relative Density: | Approx. 1.4 g/cm ³ (20 °C) |
| Bulk density (kg/m ³) : | Not determined |
| Water solubility (g/l) : | 1.8mg/m ³ (20 °C) |
| n-Octanol/Water (log Po/w) : | Not available |
| Auto-ignition temperature: | > 140 °C |
| Decomposition temperature: | Not available |
| Viscosity, dynamic (mPa s) : | Not determined |
| Explosive properties: | Not explosive.May form explosive mixtures with air |
| Oxidising properties: | Not oxidizing |

9.2. Other information:

| | |
|---|---------------|
| Fat solubility(solvent– oil to be specified) etc: | Not available |
| Surface tension: | Not available |
| Dissociation constant in water(pKa): | Not available |
| Oxidation-reduction Potential: | Not available |

10 Stability and reactivity

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

Under normal conditions, the product is stable. No hazardous reaction when handled and stored according to provisions. Hazardous reactions are not known.

10.3 Possibility of hazardous reactions:

Under normal conditions, not hazardous reactions will occur.

10.4 Conditions to avoid:

Heat, flames and sparks

10.5 Incompatible materials:

Strong oxidizing agents..

10.6 Hazardous decomposition products:

Thermal decomposition products: carbon monoxide (CO), nitrous gases (NOx), Sulfur oxides (SOx).

11 Toxicological information

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| 11.1 Toxicokinetics, metabolism and distribution | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------------------|-----------------------|---------------|-------------------|----------------|-------------------|----------------|------|------------|-----|------|----------|-----|-----|------|--------------|-----|-----------------------|----------|-----|-----|------|-------------|-----|----------------------|----------|-----|-----|
| Non-human toxicological data: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Method: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dosis: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Routes of administration: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Results: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absorption: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Distribution: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metabolism: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Excretion: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.2 Information on toxicological effects | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acute toxicity: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LD50(Oral, Rat): | >5000 mg/kg(Rat) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LD50(Dermal Rabbit): | >2000 mg/kg(Rabbit) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LD50(Inhalation, Rat): | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin corrosion/irritation: | May irritate the skin. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Serious eye damage/irritation: | Not applicable. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory or skin sensitization: | May cause an allergic skin reaction. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Germ cell mutagenicity: | Not mutagenic (in vitro, in vivo). | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinogenicity: | This product does not contain any carcinogens or potential carcinogens as listed by OSHA,IARC or NTP. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| reproductive toxicity: | Not classified | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STOT- single exposure: | Not classified | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STOT-repeated exposure: | Not classified | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aspiration hazard: | Not classified | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 Ecological information | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Toxicity: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"><thead><tr><th colspan="2">Acute toxicity</th><th>Time</th><th>Species</th><th>Method</th><th>Evaluation</th><th>Remarks</th></tr></thead><tbody><tr><td>LC50</td><td>> 2.7 mg/l</td><td>96h</td><td>Fish</td><td>OECD 203</td><td>N/A</td><td>N/A</td></tr><tr><td>EC50</td><td>> 0.005 mg/l</td><td>48h</td><td>Aquatic invertebrates</td><td>OECD 202</td><td>N/A</td><td>N/A</td></tr><tr><td>EC50</td><td>> 0.87 mg/l</td><td>72h</td><td>Algae/aquatic plants</td><td>OECD 202</td><td>N/A</td><td>N/A</td></tr></tbody></table> | Acute toxicity | | Time | Species | Method | Evaluation | Remarks | LC50 | > 2.7 mg/l | 96h | Fish | OECD 203 | N/A | N/A | EC50 | > 0.005 mg/l | 48h | Aquatic invertebrates | OECD 202 | N/A | N/A | EC50 | > 0.87 mg/l | 72h | Algae/aquatic plants | OECD 202 | N/A | N/A |
| Acute toxicity | | Time | Species | Method | Evaluation | Remarks | | | | | | | | | | | | | | | | | | | | | | | |
| LC50 | > 2.7 mg/l | 96h | Fish | OECD 203 | N/A | N/A | | | | | | | | | | | | | | | | | | | | | | | |
| EC50 | > 0.005 mg/l | 48h | Aquatic invertebrates | OECD 202 | N/A | N/A | | | | | | | | | | | | | | | | | | | | | | | |
| EC50 | > 0.87 mg/l | 72h | Algae/aquatic plants | OECD 202 | N/A | N/A | | | | | | | | | | | | | | | | | | | | | | | |
| Persistence and degradability: | Not readily biodegradable. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bioaccumulative potential: | Not applicable. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mobility in soil: | Not available. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Results of PBT&vPvB assessment: | Not available. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | |
|-------------------------------|-----------------|
| Other adverse effects: | Not applicable. |
|-------------------------------|-----------------|

13 Disposal considerations

13.1 Waste treatment methods

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste. According to local regulations, Federal and official regulations.

13.2 Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations. .

14 Transport information

| | <i>Land transport (ADR/RID)</i> | <i>Sea transport (IMDG)</i> | <i>Air transport (ICAO/IATA)</i> |
|--------------------------------------|--|--|--|
| UN-Number: | UN3077 | UN3077 | UN3077 |
| UN Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| Transport hazard Class: | 9 | 9 | 9 |
| Packaging group: | III | III | III |
| Environmental hazards: | Environmentally hazardous substances | Environmentally hazardous substances | Environmentally hazardous substances |
| Special precautions for user: | See section 2.2 | See section 2.2 | See section 2.2 |

15 Regulation information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant information regarding authorization: Not applicable.
Relevant information regarding restriction: Not applicable.
Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.
Other National regulations: Not applicable

15.2 Toxic Substance Control Act (TSCA 8b.):

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312
Immediate Fire.**

Chemical Safety Assessment has been carried out? YES NO

16 Other information

16.1 Indication of changes Version 1.1 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

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R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.3 Training instructions:

Not applicable.

16.4 Further information:

The information provided in this Material Safety Data Sheet is based upon the present state of our knowledge. This MSDS has been compiled and is solely intended for this product.

16.5 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.